



Appendix B

Version of Amended Claims with Markings to Show Changes Made

Cancel claims 23, 25, 27-36 and 38 and amend claims 1, 2, 6-9, 11, 12, 21, 24, 37, 40 and 41 as follows:

- 1. (Amended) A process for producing a rigid reticulated article, comprising:
- (a) providing a first dispersion of a ceramic or metal powder, a binder, and a solvent;
 - (b) providing a reticulated substrate which has open, interconnected porosity[.];
 - (c) contacting the reticulated substrate with the first dispersion to coat the substrate with the dispersion to form a first coating;
 - (d) drying the coated reticulated substrate;
 - (e) contacting the coated reticulated substrate with one or more additional dispersions of a ceramic or metal powder, a binder, and a solvent, in succession, to form one or more additional coatings wherein [the composition of the one or more additional coatings are the same or different from each other and the first coating] each additional dispersion has a viscosity less than the viscosity of all preceding dispersions;
 - (f) drying the one or more additional [coating] coatings between the steps of contacting;
 - (g) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and
 - (h) sintering the coated reticulated substrate to form a ceramic or metal or composite reticulated article.

2. (Amended) A process according to claim 1, wherein after drying the first coating and the one or more additional coatings form an insoluble, flexible film which can be subsequently deformed without substantially cracking off, flaking off or peeling off of the substrate.

6. (Amended) A process according to claim 1, wherein up to [6] six additional [coatings] dispersions are provided to form up to six additional coatings.

7. (Amended) A process according to claim [6] 12, wherein a successive dispersion has a lower viscosity than a preceding dispersion.

8. (Amended) A process according to claim [6] 12, wherein a successive dispersion has the same viscosity as a preceding dispersion.

9. (Amended) A process according to claim 7, wherein each dispersion has a lower viscosity than the preceding [dispersion] dispersions.

11. (Amended) A process [according to claim 6] for producing a rigid reticulated article, comprising:

(a) providing a first dispersion of a ceramic or metal powder, a binder, and a solvent;

(b) providing a reticulated substrate which has open, interconnected porosity;

(c) contacting the reticulated substrate with the first dispersion to coat the substrate with the dispersion to form a first coating;

(d) drying the coated reticulated substrate;

(e) contacting the reticulated substrate with one or more additional dispersions of a ceramic or metal powder, a binder, and a solvent to form one or more additional coatings;

- (f) drying the additional coating between the steps of contacting;
- (g) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and
- (h) sintering the coated reticulated substrate to form a ceramic or metal or composite reticulated article, wherein up to six additional coatings are provided, the viscosity of the first dispersion is from 200-2500 cP, the viscosity of the dispersion of the first additional coating is from 100-1500 cP, the viscosity of the dispersion of the second additional coating is from 50-800 cP, and the viscosity of the dispersion of the third additional coating is 200 cP or less.

12. (Amended) A process [according to claim 6] for producing a rigid reticulated article, comprising:

- (a) providing a first dispersion of a ceramic or metal powder, a binder, and a solvent;
- (b) providing a reticulated substrate which has open, interconnected porosity;
- (c) contacting the reticulated substrate with the first dispersion to coat the substrate with the dispersion to form a first coating;
- (d) drying the coated reticulated substrate;
- (e) contacting the reticulated substrate with one or more additional dispersions in succession to form one or more additional coatings;
- (f) drying the additional coating between the steps of contacting;
- (g) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and

(h) sintering the coated reticulated substrate to form a ceramic or metal or composite reticulated article, wherein at least two and up to six additional coatings are provided, [and] the composition of the first coating is different than the composition of the final coating, and one or more intermediate coatings has a composition which is a composite of the first and final [coating] coatings to form a gradient coating.

21. (Amended) A process for producing a rigid reticulated article, comprising:

(a) providing a first dispersion of a metal or ceramic powder, a binder which becomes solvent-insoluble and [flexible] polymerizes upon drying, and a solvent, wherein the binder is present in the dispersion in an amount of at least 25% by volume based on the entire volume of the solid components of the first dispersion following drying;

(b) providing a reticulated substrate which has open, interconnected porosity;

(c) contacting the reticulated substrate with the first dispersion to coat the substrate with the dispersion;

(d) drying the coated reticulated substrate to polymerize the binder and form an insoluble deformable film on the substrate;

(e) optionally contacting the coated reticulated substrate with one or more additional [dispersion] dispersions to form one or more additional coatings wherein the one or more additional coatings are the same or different from each other and the first coating;

(f) drying the one or more additional [coating] coatings between the steps of contacting;

(g) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and

(h) sintering the coated reticulated substrate to form a ceramic or metal or

composite reticulated article.

22. (Amended) A process according to claim 21, wherein the binder is a polyacrylate emulsion [which polymerizes upon drying].

24. (Amended) A process according to claim 21, wherein the binder is present in the first dispersion in an amount of at least 50% by volume based on the entire volume of the solid components of the first dispersion following drying.

37. (Amended) A rigid reticulated article, comprising, a [first sintered ceramic or metal or composite material] body having an outer surface defining a shape having a bulk volume, interconnecting openings extending throughout said volume and opening through said surface, and struts bounding said interconnecting openings, [wherein said material has at least 20 openings per inch] said body comprising an inner sintered ceramic or metal or composite material, an intermediate sintered ceramic or metal or composite material disposed over said inner sintered material, and an outer sintered ceramic or metal or composite material disposed over said intermediate sintered material, said inner sintered material having a composition different than the composition of said outer sintered material, said intermediate sintered material having a composition which is a composite of said inner and outer sintered materials.

40. (Amended) A rigid reticulated article according to claim [38] 37, wherein said article is formed by a process comprising:

(a) providing a first dispersion of a ceramic or metal powder, a binder, and a solvent;

(b) providing a reticulated substrate which has open, interconnected porosity[.]

;

(c) contacting the reticulated substrate with the first dispersion to coat the substrate with the first dispersion to form a first coating;

(d) drying the coated reticulated substrate;

(e) contacting the coated reticulated substrate with [one or more additional dispersions] a second dispersion of the ceramic or metal powder, a binder, a solvent, and another ceramic or metal powder to form [one or more additional coatings wherein the composition of the one or more additional coatings are the same or different from each other and] a second coating over the first coating;

(f) drying the [additional] second coating [between the steps of contacting];

(g) contacting the coated reticulated substrate with a third dispersion of the another ceramic or metal powder, a binder and a solvent to form a third coating over the second coating;

(h) drying the third coating;

[(g)] (i) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and

[(h)] (j) sintering the coated reticulated substrate to form [a ceramic or metal or composite] the reticulated article.

41. (Amended) A rigid reticulated article according to claim 37, wherein said article is formed by a process comprising:

(a) providing a first dispersion of a metal or ceramic powder, a binder which becomes solvent-insoluble and flexible upon drying, and a solvent;

(b) providing a reticulated substrate which has open, interconnected porosity;

(c) contacting the reticulated substrate with the first dispersion to coat the

substrate with the dispersion;

(d) drying the coated reticulated substrate;

(e) [optionally] contacting the coated reticulated substrate with [one or more additional dispersion] second and third dispersions in succession to form [one or more additional] second and third coatings [wherein the one or more additional coatings are the same or different from each other and] over the first coating;

(f) drying the [additional coating] second and third coatings between the steps of contacting;

(g) heating the coated reticulated substrate at a time and temperature sufficient to pyrolyze any organic components; and

(h) sintering the coated reticulated substrate to form [a ceramic or metal or composite] the reticulated article.